UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Avenue, Suite 325
Santa Rosa, California 95404

In Reply Refer To:
April 13, 2004 151422SWR04SR9228:JD

Mr. Philip Woodward, C.E.G.
Central Valley Regional Water Quality Control Board
415 Knollcrest Drive, Suite 100
Redding, California 96002

Dear Mr. Woodward:

Thank you for sending us the March 4, 2004, proposed amendment to the Water Quality Control Plan (Basin Plan) for beneficial uses at West Squaw Creek, Shasta County, California. The proposed basin plan amendment is a removal of designated beneficial uses from a portion of the named water body and its tributaries following a Use Attainability Analysis (UAA). A UAA, as described in the Federal Water Quality Standards (40 CFR 131.10(g) and 131.3 (g), is "an assessment of factors affecting the attainment of aquatic life uses or other beneficial uses, which may include physical, chemical, biological, and economic factors." The designated beneficial uses proposed to be removed are warm and cold water habitat and warm and cold water spawning. These comments are provided by the National Marine Fisheries Service (NOAA Fisheries) as per your specific request.

West Squaw Creek is a tributary to Shasta Lake and is upstream of the current range of listed salmonids managed by NOAA Fisheries under the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Shasta Dam is considered an impassable barrier to fish migration. The West Squaw Creek drainage is heavily impacted by abandoned and historic mine sites. Development of the mine area began in the late 1800's and in a short period of time Shasta County was California's primary copper mining area. The majority of the mines in this area ceased operations by the early 1920s. Some of the mines were intentionally collapsed at that time. However, many were simply abandoned.

The impact of mine drainage in the West Shasta Copper-Zinc District is well documented (VESTRA Resources, Inc. 2004) with fish kills in West Squaw Creek recorded as early as 1939. The source of the metals is the oxidation of natural sulfide deposits which releases low pH, metal laden water commonly referred to as acid mine drainage. This process is common in this area of Shasta County, sometimes referred to as the "copper crescent."

Remedial activities were initiated in the watershed in 1978. Since that time, point source discharges of acid mine drainage have been reduced approximately 95%. Reduction of overall loading, both point source and nonpoint source, is estimated at approximately 80%. However, despite these reductions, water quality standards for metals and pH are still routinely exceeded. The previously mentioned beneficial uses are not attained, have not been achieved for a long period of time, and are not expected to be present in the future even with continued remedial efforts.

Endangered Species Act

As mentioned previously, the area proposed to be covered by this action is 2.5 miles upstream of Shasta Dam to the northwest. Shasta Dam is currently an impassible barrier to anadromous salmonids. Therefore, NOAA Fisheries does not have listed species in the immediate area of West Squaw Creek and there is not a direct impact from the action to NOAA Fisheries' trust resources.

However, the West Squaw Creek watershed is close enough to Shasta Dam to be a significant contributor of metals loading to the upper Sacramento River. The West Squaw Creek branch of Shasta Lake was added to the Clean Water Act section 303(d) list of impaired waterbodies during the last listing cycle in 2002. NOAA Fisheries had concerns that the adoption of this basin plan amendment could allow the landowner to cease remediation efforts. This would allow for current levels of loading to Shasta Lake to continue and to be transported downstream of Shasta Dam to where NOAA Fisheries' trust resources are present and may be impacted by the increased concentrations of copper, cadmium, and zinc. This topic was discussed with you during a phone call on March 17, 2004 (Woodward, pers. com.). It was explained to NOAA Fisheries staff that remediation efforts in the West Squaw Creek watershed are scheduled to continue. The discharge is regulated through a National Pollutant Discharge Elimination System (NPDES) permit. Future permits will require implementation of more Best Management Practices and new applicable technologies as they become available to further reduce metal loadings. This basin plan amendment only recognizes that portions of the watershed can not be recovered to support a fishery and provides some protections to the landowners regarding legal actions under the Clean Water Act.

Additionally, the importance of reducing metal loads from Shasta Lake has been recognized by the Central Valley Regional Water Quality Control Board in the Upper Sacramento River Total Maximum Daily Load (TMDL) for Cadmium, Copper and Zinc (Central Valley Regional Board 2002). This TMDL states, " . . . past remediation activities at mines discharging above Shasta Dam have reduced metal loads to Shasta Lake. However, additional remediation efforts are needed because metal concentrations in Shasta Dam releases occasionally exceed the proposed numeric targets. . ." The document then goes on to state that sampling in Shasta Lake will be increased to identify the extent of dissolved metals concentrations within the lake. A separate TMDL will be developed for Shasta Lake at some point in the future.

Based upon the best available information, NOAA Fisheries does not object to the proposed basin plan amendment based upon two facts. First, NOAA Fisheries does not have listed species that utilize West Squaw Creek that could be directly affected. Second, further reductions of loading will still be mandated, implicitly through the Upper Sacramento TMDL and explicitly through a future Shasta Lake TMDL for metals. This reduction of loading will reduce the amount of metals that pass through Shasta Dam into the upper Sacramento River where NOAA Fisheries' resources maybe affected.

Magnuson-Stevens Fishery Conservation and Management Act - Essential Fish Habitat

NOAA Fisheries has evaluated the proposed action for potential adverse effects to EFH pursuant to section 305(b)(2) of the MSFCMA. Based on the best available information, EFH Conservation Recommendations are not necessary.

Once again, thank you for contacting us regarding this matter and requesting our comments. NOAA Fisheries staff have followed the development of this process for several years and are pleased by the quality of analysis done in support of the basin plan amendment. We hope that this high level of analysis is viewed as a goal for other UAA processes that are expected in the future. If you have questions regarding this letter, please contact Joe Dillon at (707) 575-6093 or Joseph.J.Dillon@noaa.gov.

Sincerely,

William Hearn for

Steve Edmondson
Northern California Habitat Manager

cc: Val Chambers, NOAA Fisheries, Long Beach, California
Michael Aceituno, NOAA Fisheries, Sacramento, California
Kathleen Goforth, U.S. EPA Region IX, San Francisco, California
Michael Tucker, NOAA Fisheries, Sacramento, California

References

Central Valley Regional Water Quality Control Board. 2002. Upper Sacramento River TMDL for Cadmium, Copper and Zinc. Final Report. April 2002.

VESTRA Resources, Inc. and Mining Remedial Recovery Company, Inc. 2004. Use Attainability Analysis, West Squaw Creek Watershed, Shasta County, California. Draft Report. Prepared for: California Environmental Protection Agency, Regional Water Quality Control Board, Central Valley Region. February 2004.

Woodward, Philip. Personal communication. March 17, 2004.

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